

Today's Topics:

\* SpaceNews 16Oct89 \*  
Dayton '90 hamfest - flea market info wanted  
Earthquake in SF!!!  
Magnetometers and magnetic storms  
Phonepatches to San Fransisco  
Pro-32 Scanner  
Telephone privacy gadgets Add: Cryptography

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Date: 15 Oct 89 01:39:51 GMT

From: unisoft!hoptoad!peora!tsdiag!ka2qhd!kd2bd@ucbvax.Berkeley.EDU (John  
Magliacane Wall Township NJ)

Subject: \* SpaceNews 16Oct89 \*

Bulletin ID: SPC91016

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SpaceNews  
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MONDAY OCTOBER 16, 1989

SpaceNews originates at KD2BD in Wall Township, NJ, and is distributed weekly around the world. It is available for UNLIMITED distribution.

\* SHUTTLE NEWS \*

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The Space Shuttle ATLANTIS is scheduled for launch on mission STS-34 on Tuesday 17Oct89 at 12:57 PM ET (1657 UTC).

\* OSCAR-9 NEWS \*

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Current information suggests that UoSAT-OSCAR-9 re-entered the earth's atmosphere and burned up on the morning of Friday 13th October, after over 8 years of operation. The last telemetry received in the UK was at 2200 GMT on Thursday 12th October. The University of Surrey Command Station would be interested in receiving any telemetry taken after this time.

\* UoSAT D/E NEWS \*

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Two weeks ago, Arianespace postponed the launch of the rocket which is to carry SPOT-2, UoSATs-D and -E and the four Microsats into orbit. Early this

week, UoSAT and AMSAT teams were formally notified that the new launch date is 19 January, 1990.

The launch delay will allow for more thorough testing of UoSAT-D and -E. This began on 29Sep, when engineers from the European Space Agency Technical Center (ESTEC) came to perform final check-out of the Transputer Data Processing Experiment (TDPE) and its interface to the UoSAT-E CCD camera. These tests demonstrated the potential complexity and flexibility of the UoSAT D/E onboard data handling system. Ground station software was used to load TDPE programs as "blocks" to the standard UoSAT FORTH DIARY running on the 1802 On-Board Computer (OBC). The OBC then loaded these programs to the TDPE using the Transputers' built-in serial bootloaders using the UoSAT Data Sharing (DASH) bus. The TDPE then commanded the CCD camera to take a picture, the picture was transferred from the camera to TDPE at 5 Megabits/Second, and finally the TDPE downloaded the image at 9600 bits/sec. to the "ground station" using a simple asynchronous packet format.

The optics and the electronics of the UoSAT-E CCD camera were designed by engineers at UoSAT. The design is expected to provide Earth imaging with a resolution of approximately 2.7 kilometers and an image size of 740 x 960 km. The image is 386 pixels X 244 pixels with 8-bits of grey scale per pixel. Images will be transmitted on the UoSAT-E downlink to all radio amateurs, probably using AX.25 packet radio (generated by yet another on-board computer, a CMOS Z80).

The mandatory flight-acceptance vibration tests were conducted this week back at the Royal Aerospace Establishment, and both satellites passed without hitch. UoSAT-D and -E are now in the clean room at the University of Surrey, where they will undergo nearly two months of operational tests, and provide testing grounds for the PACSAT and experimental software which is now under development at Surrey.

[Story via OSCAR-11]

★ OSCAR-13 NEWS ★

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For yet unexplained reasons, the Integrated Housekeeping Unit (IHU) on-board OSCAR-13 failed sometime at or near perigee between orbits 1012 and 1013. AO-13 command station DB20S reported that the failure occurred between 0700 and 1000 UTC on 09Oct89. NO transponder operations are allowed until spacecraft operations are fully restored.

★ MIR NEWS ★

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Launch of Module-D (Service Module) is expected to take place today, 16Oct89. This week, Progress M-1 will undock from Mir's forward docking port and will

be sent into a destructive re-entry. On 23Oct89, Module-D will dock with Mir at the forward axial port and will later transfer to one of the axial ports using its manipulator arm.

\* RS10/RS11 NEWS \*

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Yes, we DO have some RS10/RS11 news this week! Rich Gopstein recently monitored these spacecraft and found RS10 to be active on Mode KA.

\* ARIANESPACE VIDEO \*

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European readers of SpaceNews might be interested to know that Arianespace transmits live video of their launches on Eutelsat (usually ECS 1 F2) starting approximately 30 minutes before scheduled launch time. The video is easily copied throughout Europe using a TVRO earth station having an antenna diameter of 1.5 meters or greater.

[Thanks to Alan, GM4MUN]

\* MESSAGES de KD2BD \*

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>> GM4MUN : Alan, Thanks for the note and report on Arianespace video!  
>> N2JUX : John, I'll let you hear my Mir tapes later this week.  
>> Dena : Happy Birthday!

\* FEEDBACK WELCOMED \*

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Feedback regarding SpaceNews can be directed to the author (John) via any of the following paths:

UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd  
PACKET : KD2BD @ NN2Z

MAIL : John A. Magliacane  
Department of Electronics Technology  
Brookdale Community College  
765 Newman Springs Road  
Lincroft, New Jersey 07738-1599  
U.S.A.

<<< Stay on course.....Say YES to Morse! >>>

\* SpaceNews \* >> Satellite News You Won't Find Everywhere Else << \* SpaceNews \*

<eof>

--

UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd

PACKET : KD2BD @ NN2Z (John)

... "There is no expedient to which a man will not resort to  
avoid the real labor of thinking." .... Sir Joshua Reynolds.

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Date: 20 Oct 89 02:33:37 GMT

From: bgsuvax!sebert@tut.cis.ohio-state.edu (Kim Sebert)

Subject: Dayton '90 hamfest - flea market info wanted

> From article <32014@ucbvax.BERKELEY.EDU>, by ghg@ucbvax.BERKELEY.EDU (George Goble):

> Does anybody know of a contact to arrange for flea market

> (outside) space for the 1990 Dayton hamfest?

>

> Thanks in Advance.

>

> --ghg

Dara, so I'm told, does nothing with tickets or reservations until after Jan 1 . So everybody has an even change. But I'll look up the address if it doesn't show up here quickly.

sebert@andy.bgsuvax.edu

>

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Date: 19 Oct 89 18:01:34 GMT

From: brunix!doorknob!mnp@uunet.uu.net (Matthew Nicholas Pappas)

Subject: Earthquake in SF!!!

Any idea when machines on the west coast at DEC will be up an running again?

Mail to UCSC is bouncing. No suprise, i suppose.

-matt

Brown Computer Graphics Group

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uunet ! brunix ! mnp  
or mnp @ {cs.brown.edu, browncs.bitnet }

Matthew Nicholas Pappas  
Brown University

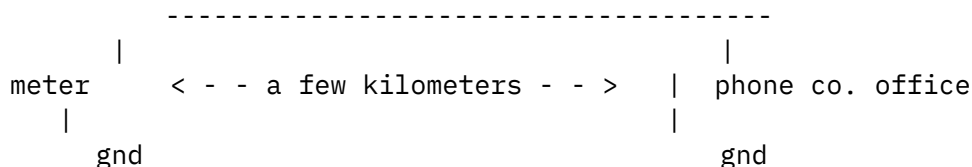
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Date: Thu, 19 Oct 89 22:03:39 EDT  
From: Robert Carpenter <rc@cmr.ncsl.nist.gov>  
Subject: Magnetometers and magnetic storms

Well, actually the subject is detecting magnetic disturbances.

Decades ago W3GKP used a VERY simple means of detecting disturbances such as magnetic storms - as an aid to his 2-meter aurora prediction interest - to wit:

Using a high-input-impedance voltmeter, find the grounded side of your telephone line. Now continue to measure or record this "zero" voltage relative to a good (water-pipe) ground at your location. When there is a disturbance from a magnetic storm you will see a voltage. He saw as much as a volt for big storms. When your phone rings, you may see a HUNDRED volts, so your meter has to be able to handle that kind of overload.

The idea is that you are measuring the voltage induced in a loop of wire from your house back to the phone company office (with a return through the earth itself), induced that is by changes in the Earth's field.



Your meter will have to have perhaps a megohm input impedance to avoid upsetting the phone company (if I remember what Smitty said).

BTW, Smitty was one end of the first ham EME contact (with W4A0) on two meters. Sadly they are both now Silent Keys.

73, Bob W3OTC

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Date: 20 Oct 89 04:59:46 GMT  
From: agate!shelby!lindy!kevin@ucbvax.Berkeley.EDU (Kevin J. Burnett)  
Subject: Phonepatches to San Fransisco

In article <30500247@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:  
>I personally would like to hear about what INTRA Bay Area ham radio activity  
>is taking place. I suspect that we will hear about this, but not immediately.

Well, immediately after the quake struck, I went around the whole house to check for structural damage, turned off the gas, and then checked into the San Mateo County RACES emergency net on the WA6TOW repeater. The net handled a variety of reports from all over the Bay Area, such as road conditions, damage reports (from downed power lines to ruptured high-pressure water mains and buckled roads), and the like. Then it moved on to coordinating some Search & Rescue (search dogs and the like), emergency generators and Red Cross-type traffic. The net ran on into the night; I couldn't tell you when it shut down, because I had other things to worry about (like a father stuck on a train who-knows-where).

Overall, the net operated in a very orderly fashion, with not much of the 'idiot-traffic' one might expect.

One thing that surprised me was that the repeater never got knocked off the air; others in the area were either knocked off completely, or were in a very restricted mode.

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Kevin Burnett, N6UWS (ex-KC6A0A)      AMPR.ORG: 44.4.0.231  
"She was an acrobat's daughter, she swung by her teeth from a noose;  
but then one day, her dentures gave way, and she flew through the air  
like a goose." - Daffy

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Date: 17 Oct 89 19:24:37 GMT  
From: hpfcso!jmn@hplabs.hp.com (John Newman)  
Subject: Pro-32 Scanner

Or the PRO-30 ??

Also thanks.

jmn%hpfcrt@hplabs.HP.COM  
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Date: 19 Oct 89 17:48:03 GMT  
From: zephyr.ens.tek.com!tekcr1!tekgvs!jans@uunet.uu.net (Jan Steinman)  
Subject: Telephone privacy gadgets Add: Cryptography

<On National Public Radio last week there was a story about baby monitors...  
The problem: Anyone with a radio scanner can hear just about every conversation

in your house.>

Monitoring these is real interesting late at night, especially since so many babies sleep in their parent's rooms! (Of course, this is what I've been told. Being a mature adult, I have no need for such titilation. :-)

Seriously, it's going to be tough to get manufacturers to add any cost at all in this price sensitive market. I suspect encryption would double the price of a baby monitor. The only hope I see is if a company \*concentrates\* on secure baby monitors, since in order to sell them at the higher price, they will have to explain why they are better than cheaper ones, which is an issue I imagine the baby-monitor industry would just as soon ignore.

The one that really upsets me is that the CMT lobby got EPCA pushed through congress to save a lousy \$10 - \$20 on a kilobuck device!

Jan Steinman - N7JDB  
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End of INFO-HAMS Digest V89 Issue #782

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